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CSAF LOGISTICS REVIEW

FOCUSED IMPROVEMENT FOR EAF READINESS

by

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Contents

	<i>Page</i>
DISCLAIMER	ii
ILLUSTRATIONS.....	v
TABLES.....	vi
ACKNOWLEDGEMENTS	vii
AUTHORS' PREFACE.....	viii
ABSTRACT	xii
INTRODUCTION.....	1
BACKGROUND.....	3
CSAF's Need for Change	3
Operation ALLIED FORCE Lessons Learned	5
NEAR-TERM ANALYSIS.....	9
Standardization of Wing Logistics Planning Functions within the Logistics Group	9
Merge Supply and Transportation Functions.....	10
Focus Sortie Production in OG and Fleet Health in LG	11
CRITICAL ANALYSIS.....	17
EAF: Just A Scapegoat For Change?.....	17
CLR Goals:	18
Materiel Management	23
Maintenance Supply Liaison (MSL).....	23
Contingency Plans	24
Technical Training and Officer Development	25
Expeditionary Logistics School	27
Sortie Production and Fleet Health	30
ADDITIONAL CONSIDERATIONS	35
RECOMMENDATION / WAY AHEAD.....	38

CONCLUSIONS	43
APPENDIX A	46
ABOUT THE AUTHORS	54
BIBLIOGRAPHY	56

Illustrations

	<i>Page</i>
Figure 1 Challenges in an EAF Environment (AL/IL Briefing, Aug 01)	46
Figure 2 Approved Near-Term Test Objectives (AL/IL Briefing, Aug 01).....	46
Figure 3 Logistics Plans Initiative (AF/IL Briefing, Aug 01).....	47
Figure 4 Materiel Management Initiative (AF/IL Briefing, Aug 01).....	47
Figure 5 Sortie Production and Fleet Health Initiatives (AF/IL Briefing, Aug 01)	48
Figure 6 Expected Outcome of CLR (AF/IL Briefing, Aug 01).....	48
Figure 7 Long-Term Initiatives (AF/IL Briefing, Aug 01)	49
Figure 8 Near-term Analysis Methodology (AF/IL Briefing, Aug 01).....	49
Figure 9 Slippery Slope (USAFE Briefing, Sep 99)	50
Figure 10 Proposed Organizational Structure (USAFE Briefing, Sep 99)	50
Figure 11 Flying Squadron and w/ Flight Line Maintenance Organizational (USAFE Briefing, Sep 99)	51
Figure 12 Objective Wing Structure (USAFE Briefing, Sep 99).....	51
Figure 13 Expeditionary Logistics School Objectives (ACC, Jan 02).....	52
Figure 14 Expeditionary Logistics School Course Outline (ACC Briefing, Jan 02)	52

Tables

	<i>Page</i>
Table 1 LG AFSC Distribution (Dec 2001).....	53

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Authors' Preface

Areas targeted for improvement under CLR are a matter of getting back to the basics. Although many areas are targeted for improvement, CLR failed to articulate why many of the war fighting skills and core principles of aircraft maintenance were lost. Understanding what caused the degradation of skills helps prevent future recurrence. Although many factors (e.g., draw down of forces, operations tempo, objective wing structure, funding, and shortfalls in two-level maintenance) contributed to the overall degradation of aircraft maintenance processes, the inability to adequately respond to the dynamic environment can be tied to a common theme. That theme is the lack of a single authority for maintenance. When Gen McPeak authorized the current wing structure, he was counting on a number of constants. The first was the ability of two-level maintenance to satisfy demands of training and combat. Second was the confidence in the reliability and maintainability of current Air Force weapons systems. Third was the premise of deploying in squadron size packages; this is supported by Gen McPeak's comments:

"...we'll have one squadron team that's responsible for flying and fixing aircraft. They'll have a common boss and a common bond. By the way, our war plans often call for mobilizing single squadrons...But we've put years into the effort to improve reliability and maintainability, and this is now paying off. We can now put the emphasis where it rightly belongs. The Air Force exists to operate and employ equipment--not fix it...."¹

Interesting enough, Gen McPeak was clearly aware of the difficulties associated with maintaining aircraft when referencing why we got away from the flying squadron

maintenance (FSM) concept: "Why did we get away from it? Frankly, because maintaining aircraft is a tough, complicated business. And we organized to solve the logistics problems." Gen McPeak also realized the need to properly train new squadron commanders to take on the new responsibilities.² This training is definitely an area the Air Force failed.

Reviewing Gen McPeak's *Selected Works* revealed several key aspects leading to today's problems. As a great visionary, he highlighted the basic combat unit as the squadron, with the flying squadron commander (FS/CC) as the team quarterback.³ He goes on to say the first time a FS/CC gets serious on-the-job training for flight line maintenance under the tri-deputy construct was under field conditions. Arguably, under the tri-deputy structure, FS/CCs had few opportunities (if any) to exercise responsibility or authority over aircraft maintenance under field conditions. Although, flying squadrons often provided a Deployment Commander (DETCO) for deployments, maintenance officers often assumed and fulfilled all responsibilities for aircraft and maintenance personnel. Gen McPeak also highlighted the importance of the Wing Commander (WG/CC) becoming a mission support officer in the command post during war, while the Operations Group Commander (OG) led the forces into combat.⁴ This scenario implies the WG/CC's focus is on the welfare of the entire wing versus an individual target set in an air tasking order. Paralleling the role of the WG/CC on a smaller scale, should the FS/CC be concerned about the welfare of the squadron's aircrews and maintainers or an individual target set? Should the responsibility of leading flyers in combat fall upon the operations officer? Naturally, the responsibility for the FS/CC exceeds leading aircrews into combat. Shortfalls of FSM under the objective wing were realized when the

structure experienced its first real test during Operation ALLIED FORCE (OAF) in 1999. As highlighted in several USAFE briefings on the OAF lessons learned, FS/CCs did not successfully juggle operational, logistics, and personnel requirements. More importantly, the “air war” highlighted that FS/CCs were not adequately trained as envisioned by Gen McPeak.⁵ The quarterback effectively led the offense, but no coach was available to ensure both the defensive (maintenance support) and offensive strategies were effective. Additionally, USAFE highlighted many deficiencies in war-fighting skills of both maintenance officers and SNCOs. Interesting enough, when the USAFE LG discussed issues with several FS/CCs, many highlighted the need for better-trained maintenance officers. When asked who held the responsibility for properly training flight line maintenance officers, many FS/CCs felt it was the role of the LG versus themselves; yet when asked who was responsible for training of their aircrews they accepted the responsibility.⁶ This leads to the question of who holds the responsibility for mentoring and teaching flight line maintenance officers on the proper management of aircraft and personnel. As the USAF continues to move forward in the business of flying and fixing airplanes, not establishing the best organizational structure for optimal combat capability and support is a serious injustice to the principles of the most efficient organization to conduct business in times of peace and war. Our current system overly focuses on the operational element of combat capability. However, historical lessons of war proved time after time the value of proper logistics support. The past 10 years have led to skills degradation of the Air Force's most valued maintenance assets, maintenance personnel. Not only have maintenance officers and SNCOs become less proficient in performing their duties, but also the camaraderie and network shared amongst maintenance

leadership in the wings and at various levels is lost. The brotherhood once shared was key to successful mentoring of the officers and the overall success of wing operations.

In fairness to previous Air Force leadership, there was no way the focus on the objective wing could have accounted for the past global turmoil that requires greater US presence throughout the world. A greater need for US presence increased many wings' and squadrons' operations tempo significantly. This phenomenon is further hindered by, an aging fleet and overstated or overly optimistic mean time between failures (MTBF) of intermediate level and depot supported weapons systems components. The domino effect from high MTBF is increased man-hours, which leads to less time for quality training. The result is the less experienced workforce seen today. Followed by funding and a variety of other issues, mission capable rates continued down the slippery slope as seen in many USAFE and Air Combat Command (ACC) presentations.⁷ The lesson learned is establishing an organizational structure that supports the dynamics of a changing environment. This structure is best supported by a single vision for the processes involved.⁸

Notes

¹ McPeak, Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, 109

² Ibid, 109.

³ Ibid, 54

⁴ Ibid, 107.

⁵ BGen Terry L. Grabreski, "Posturing Aircraft Maintenance for Combat Readiness." Briefing, Ramstein AB, GE, Unpublished, Sep 99.

⁶ Ibid.

⁷ Ibid. **(Slippery Slope Appendix A, fig 9)**

⁸ Jumper, Gen John P. "Posturing Maintenance for Combat Readiness." Briefing, Washington DC: HQ, USAF, Sep 99.

Abstract

In the Spring of CY01, the Air Force Chief of Staff approved several initiatives under the CSAF Logistics Review (CLR) to improve logistics processes. The goal of the CLR is to improve the combat readiness and capability of the EAF by making logistics processes smarter, more efficient, and more effective. With this direction, MAJCOMs identified improvement opportunities in the areas of wing-level distribution, aircraft fleet health, contingency planning, and officer/SNCO development. The initiatives included consolidating base distribution processes under a single squadron; making the Logistics Group commander responsible for long-term fleet health through the realignment of monitoring/management agencies; integrating all logistics contingency planning and deployment processes; and developing initiatives to better train officers and SNCOs. The key question is whether or not the changes driven by the CLR are improving EAF readiness and capability and whether the desired effects are being achieved? To answer these questions concerning the CLR, a critical analysis was conducted by reviewing the background, proposed changes, and MAJCOM monthly progress reports. Arguably, the most controversial issue surrounding the CLR is the proper alignment of sortie production and fleet health functions or the most efficient organization for aircraft maintenance.

Although initiatives for the wing distribution are in their infancy, all MAJCOMs reported favorable results from the consolidation of the supply and transportation

squadrons, which in some cases included the possibility of integrating logistics planning and deployment processes under a single boss. Underneath fleet health, the consolidation of phase also received favorable MAJCOM inputs; however, there is wide spread controversy over the roles, responsibilities, and relationships of the Deputy Operations Group Commander for Maintenance (DOGM) and the newly established Maintenance Operations Officer. Under officer training, the development of the Expeditionary Logistics School is proceeding well; however, issues surfaced on the eligibility of the targeted attendee as well as the follow-on assignment.

With the change of our operational concept to the EAF, it became evident support processes needed to change to best support this dynamic environment. The changes for the wing distribution and the focus on deployment planning and execution are on target. With continued refinement, the synergy created from unified focus will definitely improve wing EAF capabilities. As for the logistics school, further study is required to validate the curriculum; key elements are keeping in mind the desired product and the most beneficial placement of the graduate into the wing structure. Finally, although initiatives to improve sortie production and fleet health are yielding positive benefits, further gain can be realized by consolidating all aircraft maintenance under a single boss with a "Ph.D." in aircraft maintenance.

Chapter 1

Introduction

The common habit of referring to technology in terms of its capabilities may, when applied within the context of war, do more harm than good.

—Martin van Creveld

Arguably, the most controversial issue surrounding the objective wing is the proper alignment or most efficient organization for aircraft maintenance. For nearly a decade, this issue continued to surface and climaxed when Headquarters USAFE took the issue to the Air Force Chief of Staff (CSAF) in the winter of 1999. USAFE's efforts led to a CSAF directed top down review of logistics processes. This review is better known as the CSAF Logistics Review or CLR. Following the initial review, which included inputs from all MAJCOMs, the Chief agreed to a 6-month test of approved initiatives at MAJCOM selected locations. As an identified opportunity for research by AF/ILMM, this research paper provides a critical analysis of Air Staff's request to examine the desired effects of CLR. Specifically, AF/IL stated/requested:

"The goal of the CSAF Logistics Review (CLR) is to improve the combat readiness and capability of our EAF by making our logistics processes smarter, more efficient, and more effective. As our operational concept changed to the EAF, it was clear that our support processes had not changed to best support the EAF. Are the changes driven by CLR improving EAF readiness and capability? Are we achieving the desired effects?"¹

To address these questions, this paper discusses the background of CLR, analyzes the results of the near-term CLR objectives, and provides a critical analysis of CLR initiatives. Finally, this paper provides recommendations and additional considerations. Due to the broad range of CLR, the main focus of this paper is on processes impacting aircraft maintenance.

Notes

- ¹ ACSC Research Project Data Base. Maxwell AFB, AL, Sep 2001.

Chapter 2

Background

During the last war eighty percent of our problems were of a logistical nature.

—Field Marshal Bernard Montgomery

CSAF's Need for Change

Since the birth of the Air Force in 1947, wing-level aircraft maintenance experienced continuous organizational change. On-equipment maintenance continuously moved back and forth from operational alignment to centralized maintenance control. However, in 1978, Tactical Air Command's commander, General Creech established what proved to be the most effective organizational structure for maintenance -- Combat Oriented Maintenance Organization (COMO). As highlighted in previous research projects, wing-level maintenance successfully operated for 14 years under COMO, which is the longest period of organizational stability for aircraft maintenance ever.¹ In fact, COMO proved itself under combat, which is the greatest challenge for any military process. COMO's support for the Air Force's intense operations against Iraq in Operation DESERT STORM was outstanding. Following a highly successful DESERT STORM, the requirements driven by force reduction provided an opportunity to reorganize to the current objective wing structure.

The fall of the Berlin Wall in 1989 marked the initial end to the “Cold War” and with its demise a reduction in defense spending and a reduction in overseas presence and manpower cuts of around 30 percent.² Furthermore, the DoD established a need for a highly mobile force capable of quick deployment across the globe to influence regional conflicts. General McPeak felt the only way to maintain combat capability within the reduction of force guidelines was reorganization. His new organization was based on six overarching themes: strengthen the chain of command, consolidate where practical, decentralize, streamline and flatten, clarify functional responsibilities, and cut overhead.³ He believed the wing structure was too top heavy with an over abundance of colonels and their associated staffs. Additionally, he felt the levels of responsibility and authority were unbalanced. For instance, the maintenance deputy, who had the fewest officers, supervised twice the number of personnel as any other deputy in the wing. The officer to enlisted ratio under the maintenance deputy was 1:54 vice 1:1.6 under the operations deputy. He felt this was not much of a leadership challenge for the rated officers.⁴ General McPeak's partial solution was to move flight-line maintenance back into the flying squadrons, giving flying squadron commanders more responsibility and training for future group/wing command responsibilities. He also wanted to ensure the squadron trained with the same leadership structure it would deploy to combat with. Unfortunately, the flying squadron commanders were ill prepared to take on such colossal responsibility. Finally, Gen McPeak believed the Air Force existed to operate and employ equipment, not fix it and felt organizations should be modeled around the centrality of operations.⁵ He believed the consolidated maintenance organization was driven by logistics shortfalls and that the Air Force's investment in reliability and

maintainability had nullified such requirements. The future revealed the complexities of running and sustaining effective maintenance operations were greatly underestimated.

Within 3 years of implementing the Objective Wing structure, ACC experienced declining readiness. A 1995 Corona-directed functional management review (FMR) on maintenance indicated most OGs lacked the training to address maintenance issues. Additionally, the FMR noted the oversight provided by Logistics Group Commanders (LGs) on fleet health issues was dependent upon the OG/LG relationship, which was personality dependent.⁶ Unfortunately the desired relationship was not present at many wings. The FMR also identified the difficulty for LGs to mentor maintenance officers in the Operations Group.⁷ The interim solution for many of these shortcomings was to establish a Lieutenant Colonel (O-5) Operations Group Deputy for Maintenance (DOGM). The biggest downfall with the newly established DOGM position is they were given no command authority or operational control of maintenance activities in the group. Their responsibilities were not clearly stated; and since they were out of the command chain of the group's maintenance officers they were not properly empowered to teach or mentor. Like the involvement of LGs previously noted, the effectiveness of the DOGM was dependent on personalities of the OG, the DOGM, and the FS/CCs who actually owned the young maintenance officers.

Operation ALLIED FORCE Lessons Learned

Following the conglomeration of many factors, the primer was set for the scenario witnessed during Operation ALLIED FORCE (OAF) in the Summer and Fall of 1999. OAF highlighted significant problems with one of the USAF's critical processes. First, aircraft arrived in theater less than optimally prepared for combat. Many arrived with

high-time engines, engines overdue time changes and grounding inspections, and aircraft due phase inspections. Second, units arrived to the fight missing critical tools to repair aircraft, resulting in aircraft spending nearly a week of down time awaiting tools. Third, a major concern from the AFFOR/A4 rear staff was the lack of wing-level focus on aircraft maintenance indicators and developing a cohesive long-term plan for fleet management. Several DOGMs were too involved in daily operations to recognize the myriad of aircraft inspection/time change requirements on the horizon, which were exasperated by the amount of accelerated time placed on airframes. Without headquarters intervention, many units would have found themselves in serious trouble. Finally, field visits revealed additional problems at multiple levels of leadership. The focus of flying squadron commanders shifted into performing their wartime "quarterback" function of flying aircraft and leading pilots into combat. This focus in turn neglected over 85 percent of their squadron. No "coach" was available to ensure a balanced game plan was executed. Additionally, senior to mid-level maintenance managers within a wing or deployed unit shared differing perspectives versus a common perspective on executing their wartime role. For instance, at some USAFE locations the LG was actively involved in all maintenance processes in the wing while at other locations flight line maintenance was strictly monitored only by the DOGM. Further review revealed maintenance leadership was not receiving the proper level of training and mentoring, resulting in the lack of critical fleet management tools of the trade that were once etched in their minds through lessons taught by senior maintenance managers in their chain of command.⁸

In light of the above, General John Jumper, Commander, United States Air Forces in Europe (COMUSAFE), directed his logistics staff develop a fix to the problems experienced. In his guidance, he provided five guidelines to operate:⁹

1. Standardize maintenance practices
2. Provide safe, reliable and effective support
3. Eliminate inefficiencies and duplication of effort
4. Provide the best support to EAF requirements
5. If current structure did not meet the objectives, then propose an alternative that best met the criteria

Following several iterations from his staff, General Jumper proposed to CSAF a plan to consolidate all maintenance under a single boss. The foundation of COMUSAFE's proposal was based on his infamous commentary regarding responsibilities in the USAF. In essence, he stated the two most important things the USAF does are fly and fix airplanes. Therefore, the Air Force should grow leaders with a Ph.D. in each but not both. In addition to requesting permission to test a consolidated maintenance organization, USAFE's briefing to the CSAF highlighted 5 areas:¹⁰

1. Light, lean, and lethal EAF requirements
2. Operating in environment highlighted by constrained resources
3. Decreasing MC rates and aging fleet
4. OAF experiences / lessons learned
5. Deployable squadron concept does not suit EAF requirements

CSAF did not approve USAFE's request to test the consolidation of maintenance, but instead directed a 1-year review of logistics focused on changes that facilitate the EAF.

The CLR goals and guidelines were as follows:

1. Keeping turbulence at a minimum by evaluating processes rather than organization
2. Relate all changes/adjustments to the EAF, specifically whether changes should be made for more centralized or decentralized support for home and deployed forces
3. Consider leadership development for officers--look at both logisticians and operators

4. Developing changes or adjustments within constrained funding boundaries

Following the CORONA, the CSAF approved long-term initiatives and testing of near-term initiatives.¹¹

Notes

¹ Johnson, Major Charles D. "USAF Aircraft Maintenance Management: Is There a Better Way" Research Report no. AU/ACSC/087/2000-04 (Maxwell AFB, AL: Air Command and Staff College, April 2000)

² McPeak, Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, 69.

³ McPeak, Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, 70.

⁴ McPeak, Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, 105.

⁵ McPeak, Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, 109.

⁶ Johnson, Major Charles D. "USAF Aircraft Maintenance Management: Is There a Better Way" Research Report no. AU/ACSC/087/2000-04 (Maxwell AFB, AL: Air Command and Staff College, April 2000), 31.

⁷ Ibid.

⁸ Truhn, Maj Harry, "Maintenance Organizational Structure Assessment", Briefing, Ramstein AB, GE, Unpublished, Sep 99.

⁹ Ibid.

¹⁰ Jumper, Gen John P. "Posturing Maintenance for Combat Readiness." Briefing, Washington DC: HQ, USAF, Sep 99.

¹¹ "AF/IL BOA UPDATE: CLR Initiatives." Briefing, Washington DC, April 2001.

Chapter 3

Near-Term Analysis

I don't ever, ever, ever want to hear the term logistics tail again. If our aircraft, missiles, and weapons are the teeth of our military might, the logistics is the muscle, tendon, and sinew that make the teeth bite down hard and hold on--logistics is the jawbone! Hear that? The JAWBONE!

—Lieutenant General Leo Marquez, USAF

The immediate focus of CLR is to test initiatives with potential to improve EAF support across the Air Force. These initiatives include the standardization of wing logistics planning functions within the LG, the merger of supply and transportation functions into a single squadron, and the realignment of maintenance processes to focus sortie production management in the OG and fleet health management in the LG. These initiatives were tested at selected wings from August 2001 through February 2002. Test results will be analyzed and a proposal presented to Air Force leadership at CORONA for decisions on Air Force-wide implementation. This section provides a critical analysis of MAJCOM data and does not reflect the position or influence of AF/IL or other DoD organizations.¹

Standardization of Wing Logistics Planning Functions within the Logistics Group

The goal of standardizing wing logistics planning functions is to enhance contingency planning/support and other planning and execution processes. This initiative involved testing of the logistics planning functions in both the LSS and LRS at selected

wings. The exit criteria for this initiative was to realize effective and efficient deployment/contingency planning, preparation, and execution processes; improve LG accountability for deployments; improve synergy among wing functions; and to obtain effective integration with wing planning efforts.²

Analysis of MAJCOM data yielded favorable results about the synergy and improvements seen from consolidating logistics planning and deployment functions. MAJCOMs highlighted the efficiencies gained with the new structure and stated that improvements were apparent in both daily and contingency operations. For example, one MAJCOM stated the wing was the direct benefactor from consolidating mobility bags/weapons, air terminal operations and logistics plans (contingency planning and training) processes under a single boss. MAJCOMs also reported improvements in metrics and the focus to decrease mobility processing times and refine the wing deployment processes as a result of consolidation. Other points of interest are the favorable comments concerning the mentoring and development of logistics planners under the LG.³

Merge Supply and Transportation Functions

The goal of the supply and transportation merger is to create a single authority for the wing distribution process. The exit criteria for this initiative are to realize improvements in the base distribution process; to improve contingency planning, deployment, and execution; to enhance officer, civilian, and enlisted development; and to improve combat support command & control capabilities.⁴

The overall merger is stated to be going very well across all MAJCOMs. In addition to the previously mentioned successes about the integration of logistics planning and

deployment processes, the simplicity of operations and synergy of base distribution functions improved significantly. More importantly, all MAJCOMs reported continuous improvements as the supply and transportation disciplines become more familiar with each other's mode of operation and responsibilities.

The greatest concerns are the need for continuity provided by civilian deputies or flight chiefs, problems faced when the operations officer (supply or transportation) is deployed, and maintaining the proper balance of leadership in the consolidated flights. The civilian continuity problem will be less significant for overseas locations since most are eliminating the overseas deputy positions to allow balanced officer leadership in the combined squadron. Standardization will become the key element for the supply, transportation, and logistics-planning merger.

Focus Sortie Production in OG and Fleet Health in LG

A main goal of CLR is to balance sortie production and fleet health in the wing. To obtain this objective, several fleet health management functions were realigned from the OG to the LG. Realignment included moving MOC from the wing and Analysis, PS&D, MSL, and QA from OG OSS to LG LSS in the Maintenance Operations Division (MOD). Additionally Phase was consolidated from the individual FSs to EMS or MXS. The exit criteria for this initiative are to realize consistent, standardized quality and timeliness of maintenance processes; to improve balance between sortie production/fleet health; and to improve teamwork between OG and LG.⁵

One of the assessment tools for the near-term test period is the monitoring of maintenance metrics to see if things are improving. These metrics include the standard maintenance metrics (e.g., MC, NMCS, NMCM, CANN, and abort rate) used for the past

few decades.⁶ However, due to the events following the Sept 11th terrorist attacks and ensuing real-world operations, MAJCOMs highlighted the baseline for measuring the impact of CLR changed. On a positive note, many test wings were able to test the full benefits of most CLR initiatives. The greatest concern highlighted in the MAJCOM reports was the feeling that resources were taxed over and above normal training missions. In cases where wings experienced declines in metrics, MAJCOM reports highlighted the opinion that the declines were more of a reflection of the increased operations tempo versus CLR initiatives. However, the same wings highlighted improvements due to initiatives related to changes in fleet health management (e.g., synergy from consolidated phase and MSL). For example, one wing contributed their ability to manage the increased phase requirements to the increased experience and manpower resulting from the centralized phase process. Monitoring of established metrics over a longer period of stability will provide a better indication of the long-term impact.⁷

Regarding realignment of maintenance processes, test locations experienced mixed results. The stand-up of the MOD appears to be going fairly well at each location. However, wings are struggling with the correct function of the MOD and MOO. For example, one wing reported the MOD (either the MOO or MOD Chief) answers all questions concerning aircraft status at the daily production/wing standup meetings. This raises the question on accountability for the officers responsible for flight line maintenance (e.g., DOGM, SMO, and Sortie Generation Flight Commander). Shifting responsibilities of long-term fleet health to the LG does not relieve the officers responsible for sortie generation of the responsibility to answer for the near- or long-term

health of the aircraft and maintenance under their management. Although this was not a trend seen in all MAJCOMs reports, it is important to emphasize the MOD should not be the focal point for questions concerning aircraft and associated maintenance.

Additionally, the wings are struggling with responsibilities of the MOO in relationship with the DOGM. As one wing succinctly put it:

“Perhaps the biggest challenge is defining the roles of the DOGM relative to the maintenance operations officer (MOO) as many of the responsibilities previously levied on the DOGM now must be divided/shared with the MOO. As my key deputy for maintenance issues, I look to the DOGM to provide management oversight of the fleet for both long-term fleet health and near term sortie production. I’ve also chartered him to ensure the fighter squadron commanders are balancing both needs. In many cases, we’ve tasked the MOO to perform functions that I still expect my DOGM to perform. While they are able to work through the details, we will continue to define the formal relationship and capture specific roles on paper. We also need to look at the long-term value of having two senior maintainers performing essentially the same function in different groups.”

Another wing even went as far as indicating that the MOO (0-3/0-4), with control of both short- and long-term fleet health functions, is becoming more important than the DOGM (0-5).

It appears several wings are misreading the intentions and guidelines set forth for the MOO and MOD. Regulations are rewritten, highlighting the DOGM's responsibility for maintenance in the OG. This responsibility as outlined in the regulations reinforces the DOGM's, as well as other wing maintenance officers', role in regard to long-term fleet health and accountability for the aircraft assigned to the wing. However, the emphasis on the MOO and the current test guidance left many to misinterpret the roles and responsibilities of the MOO. The MOO should be considered the wing's senior maintenance analyst. Based on guidance outlined in the test plan and Air Staff briefs, the MOO is paid to think outside of the box and beyond the norm. He/she is paid to help

identify problems in maintenance processes, systems, practices, and/or trends with potential impact to the wing's combat capability. The MOO serves as the "inspector gadget" to both the OG and LG and has been afforded the tools and agencies to perform this mission. On the surface the MOO is accountable to both the LG and OG via their deputies.

MAJCOMS are reporting success with fully reinstating the MOC in the midst of maintenance operations. MOC controllers are now taking on more of a management function for shared wing maintenance resources vice being only a data collection agency. Although not fully engaged and efficient in their once familiar role, MAJCOMs expressed confidence in the ability to refocus both MOC and flight line supervision on the integration of MOC into daily operations and the complimentary relationship needed to effectively use limited wing resources.

Despite initial success, wings are asking for more specific guidance. One MAJCOM report stated:

“Most of the MOCs current functions tend to fall more under the concept of Sortie Production and less under Health of the Fleet. There are many times that conflicts within the MOC exist as to whether they should inform the DOGM (responsible for sortie production) of a flight line issue or whether they should inform the Maintenance Operations Officer. The MOC controllers are often stuck in the middle between the MOO, who needs to be informed because the MOC works for him/her, and the DOGM, who needs to be informed because the fighter squadrons work for him/her. Again, there tends to be an overlap of responsibility over between the DOGM and the MOO.”

Another report even suggested that since MOC is concerned more with day-to-day sortie generation activities, they should be under the direction of the DOGM.

To sum up the MOD/DOGM interface, the general consensus appears to be the DOGM's responsibility is more challenging since all fleet health agencies/tools are no

longer under his direction. Wings feel this initiative created a coordination nightmare because use of these agencies requires OG leadership to cross group lines to request assistance or gather information. Potential conflict exists if priorities are already established by the LG or MOO.

The SPFH initiative that seems to have obtained the greatest success is the consolidation of Phase. MAJCOMs report better synergy and surge capacity, better use/sharing of personnel, better crossflow of information, overall standardization of processes, and consolidation of tool rooms and benchstock.

The EMS or MXS teams have taken on the added responsibility of phase inspections with vigor and are working hard within their organizations to improve processes, reduce inspection time, incorporate additional preventative maintenance actions, and improve the final product...a “combat-ready” aircraft to execute the wing’s mission. One such process improvement involves the addition of two supply personnel for ordering and tracking of parts.

Another consideration is permanently assigning specialist support (e.g., engines, electric and environmental specialist, and avionics specialist) to the phase. This enables phase to be self-sufficient and alleviates the need for flight line support, which allows the flight line to focus solely on the generation of airframes for current or the next day's flying schedule. One wing took the initiative to train Propulsion and Accessories Flight personnel (e.g., engines and E&E) on phase workcards. This is an excellent benchmark opportunity for Air Force-wide implementation and meets CLR's intent for the OG personnel to focus strictly on sortie generation and near-term fleet health. Recommend this option be explored further.

Furthermore, several wings have highlighted equipment issues. They suggest establishing a Table of Allowances (TA) specifically for the Phase Dock to identify expanded equipment needs that cannot be shared with independently deploying fighter squadrons (e.g., 205 and FLTS tester).

Wings also reported that combining the OG and LG MSL increases the ability to do more hands-on training and provide more support to the maintenance and flying squadrons while at the same time eliminating duplication of effort, i.e., tracking the same assets and working the same issues. An additional benefit is increased visibility on MICAP conditions from oversight by a single management agency.

Notes

¹ AF/ILMM. MAJCOM CLR Monthly Reports. Note: Information used in this section comes from reports generated by the MAJCOMs and submitted to HQ AF/IL. Due to sensitivities with the ongoing test, the exact source of the data cannot be disclosed. The forthcoming analysis is the authors' interpretation of this data and does not reflect the views of HQ AF/IL. Finally, due to research timelines, the project was completed prior to receiving the final Feb 02 MAJCOM reports.

² "AF/IL BOA UPDATE: CLR Initiatives." Briefing, Washington DC, April 2001. Appendix A, fig 3.

³ AF/ILMM. MAJCOM CLR Monthly Reports.

⁴ "AF/IL BOA UPDATE: CLR Initiatives." Briefing, Washington DC, April 2001. Appendix A, fig 4.

⁵ Ibid. Appendix A fig 5.

⁶ AF/IL. Chief of Staff Logistics Review CONOPS; Annex B, Aug 2001.

⁷ AF/ILMM. MAJCOM CLR Monthly Reports.

Chapter 4

Critical Analysis

Expeditionary Aerospace Force (EAF) is a principle--the Air Force's vision to organize, train, equip and sustain itself to provide rapidly responsive, tailored aerospace forces for 21st century military operations.

— Air Combat Command, Sep 2001

EAF: Just A Scapegoat For Change?

Many changes occurred in the Air Force since transitioning to the objective wing structure. The force downsized considerably, yet still retained multiple overseas commitments. Furthermore, the trend for applying the military arm of national power has been in non-traditional roles such as humanitarian and peacekeeping missions (e.g., Operation NORTHERN WATCH and U.S. military presence in the Balkans). Instead of supporting these commitments from strictly in-place overseas units, the role of CONUS based units increased significantly. In a lecture to ACSC students, former Air Force Chief of Staff, General Fogleman, noted the number one need espoused by his 4-star commanders was “stability” for the troops.¹ The solution to stability was the Expeditionary Air Force concept, under which the Air Force established ten deployment packages with 15-month deployed/on-call intervals. Instead of no-noticed deployments, units knew when they were vulnerable to deploy, allowing better planning and more

stability in the home station environment. AEF did not reduce the operations tempo, but it did offer a measure of predictability in the lives of the troops.

As previously noted, the requirements of the AEF changed the way units deploy. Instead of squadron-sized packages deployed to a single location, units deploy parts of a squadron in 6- or 12-ship packages to different locations. This places more of a management burden on maintenance leadership as they juggle limited workforce experience and equipment to cover multiple requirements. One may argue that increased operations tempo and AEF did not create our current problem, as the processes used to deploy and employ forces are relatively the same regardless of the size of the deployment package. Albeit, when squadrons are deployed to multiple locations, one location suffers due to lack of experience, as the "A-team" with the most experience is deployed to the tasking with the higher priority. These processes are basic to daily maintenance operations. What changed was the level of accountability, quality of training, and the level of mentoring the maintenance community once received while under a senior maintenance boss. In many instances, today's mid-level and junior maintenance leaders appear unprepared or untrained to handle the tasks at hand. Additionally, the current objective wing force structure does not allow the senior maintenance leader on base, in most cases the LG, or the senior maintenance leader in the Operations Group to mandate a "single focused" direction for wing maintenance.

CLR Goals:

One of the greatest concerns or critiques of CLR is the validity of established goals to measuring the success of CLR initiatives. This section provides a critical analysis of each goal with recommended points to clarify. The first goal examined is improving the

MC rate by 10 percent by 2004. Detailed guidance is needed on how to properly calculate this goal. One option is units calculate the 10 percent against their performance baseline (e.g., calculated by past 3-5 years performance before test). Another point of clarification is whether or not the 10 percent increase is a double-digit increase (e.g., 70 to 80 percent) or 10 percent of a unit's baseline mentioned above (e.g., 70% to 77%). Ten percent of a unit's performance baseline is the more accurate metric.

In terms of 5-level maintenance personnel retention, key factors include reducing the turbulence influencing extended work shifts, eliminating the difficulty in training subordinates, and establishing an environment that allows an individual to meet one's own training requirements. Additionally, the target audience should be clearly defined (e.g., crew chiefs or the low-density high demand air force specialty codes such as fuels, NDI, repair and reclamation, or metals technology). More importantly, focus needs to remain on elements that can be influenced by both the LG and OG. These elements include but are not limited to frequency of deployments, work hours, quality of life in the work place, and operations tempo. Finally, the enlisted work force must be queried to fully comprehend what drives retention. To improve retention, the USAF must be a more attractive option than any civilian opportunity. The greatest caution for this metric is the tendency to hold leadership or organizational change accountable for lack of improvement for processes not owned. Although the LG will hold the reigns to the fleet management processes, they do not control the key elements with the greatest impact to flight line maintenance operations (e.g., standardization of FSM processes, flying schedule development and execution, and length of the flying window).

The goal of producing a more professionally trained and capable force enhances the overall effectiveness of both the officer and enlisted corps. However, in the past the USAF established no specific guidance on job-related or value-added requirements for the term “professionally trained.” Many requirements are viewed as square-fillers or discriminators. The best example of the last statement is the requirement for officers to obtain a Masters Degree regardless of the discipline in which the degree is obtained.

In light of the above, a clear definition of "professionally trained" is needed. Professional training requirements should be job related and designed to enhance the credibility of an officer or SNCO in their career field (e.g., mishap investigation course for aircraft maintenance officers and senior NCOs or a Masters or undergraduate degree that ties into logistics or production processes). The career field gates established by the officer professional development team are on-target for these objectives. Furthermore, to meet job-related degree requirements for logisticians, more logistics related courses are needed for higher education programs at or near military installations.

Over the past few years, stabilizing the flying hour program has been one of the operational community's greatest challenges. This goal is too broad and needs to be clearly defined. A stable flying hour program implies squadrons or wings are flying the printed schedule. This is definitely a change to the constant reflow and reprint of the weekly schedule seen in many of today's flying operations. Second, a stable flying hour program requires wings to establish a flying hour window that allows maximum use of two-shift maintenance, especially for those intermediate level functions that support the wing's flying. To every extent possible, wing leaders should ensure swing shift is not left with the responsibility for both aircraft recovery and repair. Finally, a stable flying hour

program requires units build a solid annual plan with minimal, accurate, and timely reflow.

The continuation of officer development is tied closely to the goal of a professionally trained force. The critical element of this goal is recognizing and adhering to the fact that as long as rated officers are in charge of logistics processes they must consider themselves logisticians. Concepts of the "banked pilot program" offer many advantages. Flyers had the privilege of learning support processes from the ground up versus being introduced to real leadership challenges for the first time as a FS/CC. The critical aspect of this program was the opportunity to work for and learn from experienced maintainers. If the goal is to improve the growth of rated officers, they should be placed in charge of maintenance processes as young lieutenants or captains as an assistant FSM Sortie Generation or Sortie Support Flight Commander or an assistant flight commander in a maintenance squadron. Again the key is a greater appreciation for leading processes from the ground up versus a leader introduced to the entire process for the first time as a squadron commander. Many may argue our young pilots' focus on becoming combat ready may be hindered with leadership responsibilities at this stage of their career because their time spent on managing maintenance processes will be much greater than additional duties assigned on the operational side of the house. However, the dynamics of this responsibility meet the intent of developing future wing leaders with a greater understanding and appreciation for the entire wing mission.

One of the goals of CLR is to instill a balanced focus for fleet health and sortie production. The two mutually benefiting changes are: 1) redefined and clarification of the DOGM responsibilities 2) providing the LG the tools to identify negative leading

trends in readiness (e.g., Analysis and Quality Assurance). Clarifying guidance benefits both the officer occupying the DOGM position and those with whom they must interact. Defined responsibilities prevent the DOGM's effectiveness from being tied to the personality of those supported or the support received from the OG.

The intent of moving fleet health management processes under the LG is to make the senior maintenance leader on base responsible again for the overall health of the fleet. Again, the biggest factor that drives fleet health is still not under the LG's control. This responsibility remains with the OG and by default, the DOGM. The OG's line of authority highlights a further issue generated by moving fleet health functions under the LG. The agencies targeted to move to the LG are the same agencies used by the DOGM to run/monitor maintenance within the operations group for short-term health and efficiency. To some extent, the effectiveness of the DOGM is impacted because group lines must be crossed to access fleet health agencies. On the other hand, the new alignment encourages increased interaction between senior maintenance leaders in each group.

Another issue concerning LG responsibilities for fleet health is the core experience of the LG. According to AFPC figures (Appendix A, Table 1), 42% of LGs were of a discipline other than munitions/maintenance.² Under this scenario, the LG will not have the expertise/background to recognize and effect the necessary changes. Since the goal of CLR is to have a 0-6 maintainer responsible for fleet health, this issue requires additional review.

Materiel Management

Integrating materiel management into a single authority is outstanding from the standpoint of streamlining perceived duplication of efforts within a wing. As stated in AF/IL's article, combining overlapping functions in storage, receiving, and delivery under a single authority improves the overall proficiency and timeliness of these complex distribution processes.³ Additionally, integration of the aerial port squadron into logistics readiness can only strengthen the synergy involved. The greatest challenge to combining the supply and transportation processes into a single Logistics Readiness Squadron (LRS) is the enlisted workforce. As processes are combined to realize efficiencies in base distribution, the next evolution is the integration of the Career Field Education and Training Program (CFETP). This issue is an area requiring further review as a part of the continuous improvement process for logistics.

Maintenance Supply Liaison (MSL)

A key element to communicating wing requirements to the Regional Supply Squadron (RSS) is maintaining a strong maintenance liaison at base level. The MSL should remain attached to maintenance processes as a member of the Maintenance Operations Division in LSS. The MSL will take on an even more critical role as the conduit for supply issues regarding support and sustainability and should be filled with a SNCO and/or officer with knowledge of wholesale processes. In addition to RSS responsibilities, AFIs should also define the MSL's roles and integration into the wing's daily operations and contingency planning processes.

Contingency Plans

Although enhancing contingency planning, deployment, and execution requires increased funding and acceleration of new contingency planning systems, the near-term goal of standardizing logistics plans processes in the LG is critical. MAJCOMs have different views on the best location for Logistics Plans. MAJCOMs have successfully tested Logistics Plans in both the Logistics Support Squadron and as a flight in the tested Logistics Readiness Squadron. Integrating Logistics Plans with other plans and deployment processes offers much to gain in terms of synergy and focus. The "no county options" stated in the earlier stages of CLR is key to allowing this process to have the greatest impact across the Air Force. Whether in LSS or LRS, Logistics Plans should be standardized in the same squadron and/or flight at each wing across the Air Force.

Like most military processes, standardization is a critical element to improving the focus needed for wing contingency planning. Updating Air Force Instructions (AFI 10-403/404) will provide a common foundation to operate across the USAF. Next, establishing a detailed standard deployment process and structure that clearly outlines tasks to be accomplished and the organization responsible removes the fog and friction tied to the deployment and employment of wing assets. As previously, stated the key element of both tested options is to align all logistics planning and deployment functions under a single boss. The trend or focus of contingency plans is similar to that of the distribution process. The goal should be to reduce the handoffs and complexity of the mobility process in a wing in order to increase synergy and reduce processing time of equipment, aircraft, and supplies. Although integrating all deployment processes into a single flight is ideal and is receiving favorable feedback, a concern highlighted by the MAJCOMS is deconflicting wing versus squadron processes. If the flight's focus is

centered on wing operations, then the flight and individual responsible for wing deployments should not be responsible for squadron level deployment processes at execution. This potential conflict of interest highlights the need for clear guidance on logistics plans responsibilities during wing and/or squadron deployments.

Technical Training and Officer Development

The technical training and officer development initiatives appear to be on target. The greatest challenge is combining the 21S, 21T, and 21G air force specialty codes (AFSC) into a single 21R AFSC. Since 21Gs are integrators of the 21S and 21T contingency functions, the merger makes 21Gs well-rounded logisticians. Additionally, since the distribution processes of 21S and 21T are closely intertwined and both specialties are critical components of logistics plans processes, 21S and 21T officers will equally benefit from the merger of career fields. On the surface, the greater challenge of the supply and transportation merger is integrating core logistics plans processes. In times of conflict, logistics planning covers a wide spectrum that is not easily understood from watching only wing level operations.

An additional issue concerning an officer's breadth of experience is the non-rated prioritization of logistics officers. Broadening of "loggies" outside of logistics disciplines defeats the goal of establishing greater depth in an officer's core discipline. However, aircrew shortfalls are forcing more support officers to fill duties once shared by all career fields (e.g., protocol and instructor duties). Considering logistics officers are not exempt from this requirement and MAJCOM manning entitlements, the logistics community should give strong consideration to identifying and establishing critical positions with minimum grade requirements. For instance, considering the multitude of problems

identified with FSM, the squadron maintenance officer position, which was initially slated for and filled by a LtCol/0-5 in the objective wing structure, should never be filled by a grade lower than a major/0-4. Furthermore, the Sortie Generation Flight Commander should never be filled with anything lower than a core maintenance captain/0-3. Although many of our captains are doing exceptional jobs filling SMO responsibilities, they are at a two-grade disadvantage with their operations officer counterparts for providing the needed balance for fleet health and sortie production in a FS. Finally, a lieutenant, regardless of time in service, should never be selected to fill a non-core logistics requirement because the focus is to develop expertise in the officer's core discipline.

In terms of development of aerospace leaders (DAL), establishing dual-track logistics officer career paths aligns perfectly with the guidelines established under DAL. The dual-track logistics officer career path continues to enhance the previously desired diversity seen in the early 1990s to build Logistics Group commanders. However, AF/IL's article highlighted the overemphasis on crossflow into other logistics functional areas.⁴ It is important to understand some historical context of crossflow and why too much can be a problem.

First, as currently listed under the new objectives, crossflow was originally intended to be limited to a select group of officers. The program initially surfaced under the name of the Logistics Officer Professional Development (LOPD) program, which was intended to identify and pick a select/limited group of officers displaying future leadership potential and provide them the opportunity to increase their breath of knowledge in another logistics discipline. However, as fast as the LOPD program surfaced, it was

quickly dissolved. Another similarity between LOPD and the current objectives are crossflowing of officers between the 5-9 year career points. The premise behind this was to allow officers to obtain core experience before broadening to another logistics discipline. The bottom line to LOPD, crossflow, and any other form of career broadening is when done right it has much merit and is beneficial to the Air Force and the select/limited group of officers the program is intended. This is part of the premise identified under DAL. The key to success is senior leaders and young officers understanding the criteria and intent of crossflow; additionally, honest feedback on an officer's potential is critical.

The need for standardization is a common theme throughout CLR. The request for standardization for training courses is another valid request (e.g., Senior Leaders Maintenance Course (SLMC), Flying and Maintenance Squadron Commanders Courses, and Senior Noncommissioned Officer course). As lead MAJCOMs take responsibility for weapons systems development, further consideration should be given to lead commands taking a larger role in the development of officers and SNCOs. Both ACC and AMC have production supervisor courses and ACC has a SMO course. Each course could be expanded to capture a larger audience and ensure a common objective is accomplished. Funding, facilities, and manpower are the major obstacle requiring detailed study before the lead command can assume this type of role. The tactical MAJCOMs currently use ACC's SLMC as the foundation for their annual SLMC.

Expeditionary Logistics School

One of the initiatives from the Fall 00 CORONA was to develop a school of advanced logistics, co-located with the weapons school at Nellis AFB, Nevada. The goal

of the school is to create “highly skilled operational logisticians competent in the following wartime skills: mobilization, deployment, beddown, sustainment, combat employment, redeployment, reconstitution, and command and control.” In other words, the intent is to create an elite cadre of logisticians who are “experts” in the application of “expeditionary logistics”.⁵

Although this sounds idealistic, it is a huge undertaking where the skill base is very complex and requires continuous use to remain sharp. The targeted trainee for the 22-week course is an officer with one year flight maintenance and logistics readiness officer experience. The school will graduate approximately 24 students per year with the graduates assuming aircraft maintenance squadron leadership positions. It is questionable whether this is the correct follow-on position for these graduates.

A closer look at the curriculum reveals many strengths as well as areas for consideration. For instance, the first 6 weeks of the course is spent on instructor training, warrior preparation, and doctrine history. With exception to instructor training, targeted officers should have been exposed to this “basic” instruction. Some of the course material appears to duplicate curriculums from technical training in the Airmen Basic Course and Squadron Officer College. If this is the case, the course can be shortened by 4 or 5 weeks. Both Log 299 and the Contingency War Planners Course (CWPC) are excellent targets of opportunity and are already established and fully funded courses. These courses should become prerequisites to attending the ELS; this allows the opportunity to trim an additional 3 weeks off school attendance, reduces the amount of time an officer is away from their assigned unit, and reduces cost to the Air Force by not funding requirements funded via other mediums. A final consideration is to review the

classroom curriculum of the course and possibly target 21A/M and 21R technical training as opportunities to introduce officers to these elements earlier in their career.

An additional area for review is the follow-on assignment of the course graduate. The intended follow-on assignment is to a aircraft maintenance squadron leadership position. Considering this individual will become a “wing” asset, returning the officer to a flight line maintenance position may not be the best option for the officer. The ideal location for wing use of this officer is a location that integrates all wing deployment planning and execution processes. Assigning the officer to the squadron with this responsibility increases the opportunity to refine and hone skills learned at the logistics school and also enhances the opportunity to provide instruction for all 21A/M/R officers on base. Additionally, assigning the officer to the squadron that executes the wing's deployment processes, allows the officer to focus on all wing deployments vice being totally immersed in daily operations of one squadron.

The Expeditionary Logistics School is aimed at creating a deployment specialist who has a detailed understanding of key flight line maintenance processes. Since, much of the curriculum appears to duplicate much of the current 21G, Logistics Plans Officer, career field and the wing mobility effort heavily involves the current 21T career field, perhaps the best candidate is the 21R, readiness officer.

Considering the expertise gained from this weapons school graduate, one cannot help but question the future role the 21R, (envisioned as the wing installation deployment officer). With the possibility of integrating of logistics deployment processes, the course should focus greatly on the officer in charge of this process. In many cases, this officer will be or become an expert in deployment/plans. This allows an opportunity to refocus

the course material to only those components absent in the 21R-training curriculum. This focus also lessens the required course length while providing the same professional product to war fighting commanders.

On the contrary, one cannot ignore the benefits realized to any maintenance officer that attends the course; follow-on assignment to a leadership position responsible for flight line operations does not appear to be the best placement for a maintenance officer attending this school. If the intent of the logistics school is to train an aircraft maintainer as an expert in deployment planning and execution, then one of the wing's critical maintenance flight line management positions is hindered to wing training and deployment process management. A maintenance officer logistics school graduate is better used by placing the officer in one of the intermediate-level maintenance squadrons (e.g., CRS, EMS, or MXS) or in the readiness flight in the LRS. Considering current shortages in the 21A career field, a closer look is needed at the course objectives, the target attendees, and how to best use the graduates.

Sortie Production and Fleet Health

Previous lack of standardization and firm guidance led to AF/ILM publishing a revised and more directive AFI for maintenance processes. The new AFI was published and provides the needed direction to standardize maintenance practices across the AF. The next phase is standardizing other instructions impacting maintenance processes.

In terms of wing-level fleet health initiatives, additional guidance is needed on the roles and relationship. This guidance should extend to responsibilities to resolving both personnel and weapons system supportability issues with the MAJCOM and Air Staff. Second, if flight line maintenance is to remain in the OG following CLR, the DOGM

should be made the single authority for flight line maintenance and held accountable for oversight of both near-term and long-term requirements in the OG. This empowers the DOGM with the opportunity to increase standardization, wing prioritization, and cooperation amongst FSM. Finally, as the test guidance administratively assigns the MOO to the LSS/CC and working for the LG, the same argument can be made for assigning the SMO to the FS/CC and having them work for the DOGM.

In regards to fleet health, moving all fleet health monitoring/management agencies from the OG and placing them in the LSS with only LSS/CC administrative oversight sends the wrong signal about the expertise and responsibilities of the LSS/CC.⁶ Historically, this position has been downplayed as a stepping-stone or maturing process before an officer takes over a larger maintenance squadron in the wing. Considering the authority and responsibilities of a commander, the maturing process should take place prior to an officer taking command of any squadron. The logistics community has the opportunity to remove the stigma of this position by giving the LSS/CC (often times a seasoned maintenance officer) full authority and responsibility for oversight of fleet health processes. If given this authority, the LSS/CC should always be a seasoned maintenance officer with previous flight line maintenance experience.

Two courses of action that have caused much debate and concern in the operations group are the consolidation of phase and the role of the MOC. Regarding consolidation of phase, the main concern is loss of manpower and control over the phase process. However, the benefits of consolidation outweigh these concerns. Consolidation of phase increases a wing's surge capability for war and increases the daily output during peace. An additional benefit is the increased pool of available experienced technicians to work

difficult phase-related maintenance issues and train less experienced technicians. Third, the synergy of consolidating phase allows the wing to establish centralized hard-broke teams for exercises and contingencies. More importantly phase leadership, who are not caught up in the pressures of flight line operations, are able to look over the horizon and provide the long-term balanced focus on a wing's phase flow.

As for the MOC, many are concerned about the MOC becoming a directing versus coordinating agency. Under command post management, the MOC faced many challenges with the timeliness and accuracy of information; and in most cases, the officer in charge of the MOC did not possess the skills to intervene or detect problems with data accuracy or prioritization needed for wing efforts. Although the ideal placement of the MOC is in the organization owning flight line maintenance, placing the MOC in an organization led by the wing's senior maintenance officer will improve the accuracy and timeliness of information. This will also assist with prioritization of limited wing assets (e.g., fuel shop, hush house, R&R, and fuel trucks). The MOC should be located near the flight line and where possible consolidated with the command post. Ramstein AB's consolidated command post/MOC has a communications and flight line surveillance system that presents an Air Force benchmark opportunity.

As for additional training initiatives, standardization in aircraft scheduling should be a primary focus. Regardless of base or squadron assigned, the foundation of aircraft scheduling should be the same. Focus should not only be placed on standardizing scheduling practices in aircraft maintenance but also scheduling practices in operations. Operations scheduling practices can be improved by assigning the responsibilities to their

assigned 1COXX (enlisted operations schedulers) or by contracting out the function. Either option increases continuity, stability, and longevity of assigned schedulers.

Expanding the role of the Logistics Training Flight can also prove very beneficial. In addition to current training plans, the LTF should exercise the option to identify wing shortfalls outside of their normal training plans and target training opportunities that assist the wing's upgrade training requirements. In line with LTF requirements is increased availability of training managers. Many locations experience instances where training managers are shared between squadrons. To ensure the overall effectiveness of training managers, each squadron should have a single training manager assigned.

Finally, initiatives to better use all maintenance personnel are on target. However, as crossflow should be limited for the officer core, cross utilization training (CUT) should also be limited with established criteria for the enlisted force. Specifically, dependent upon workcenter requirements, every opportunity should be taken to expand the responsibilities of the sharpest and best technicians. The current manning shortfalls in the five- and seven-level skill grades hinder the ability to CUT train. In addition to CUT training opportunities, current initiatives to establish core flight line tasks will allow better use of all assigned maintenance personnel. Finally, directed guidance on the training of 3-levels during deployments will improve the workforce by expediting their upgrade. The reduced tempo and limited interruptions during deployments offers the ideal scenario for increased training.

Notes

¹ Fogleman, Gen (ret) Ronald. Lecture, Air Command and Staff College, Maxwell, AFB, AL, Dec 2001.

² AFPC Email Dec 2001 (Table 1), Appendix A.

Notes

³ Zettler, Lt Gen Michael E. "Chief's Logistics Review." *Air Force Journal of Logistics* XXV no. 2 (Summer 2001), 9.

⁴ . Ibid.

⁵ LtCol Diane Tatterfield, "Expeditionary Logistics School", Briefing, Jan'02, Unpublished.

⁶ AF/IL. Chief of Staff Logistics Review CONOPS; Annex B, Aug 2001.

Chapter 5

Additional Considerations

You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics.

—General Dwight Eisenhower, USA

An issue of continued controversy is centralization of aircraft maintenance. Many argue that both long-term and short-term fleet health functions should be consolidated under the LG. Additionally many argue the current initiatives are only a band-aid fix to our readiness issues. Others have commented that current leadership is hesitant to admit the best structure to manage complex maintenance processes is a single authority for maintenance as experienced under COMO.

There are many benefits to consolidating all of maintenance under one boss. First, it provides the wing commander with a single focal point for all maintenance issues such as fleet health, standardization, aircraft availability, etc. Additionally, having one maintenance boss is ideal for officer development and mentorship, and training of all maintenance personnel. The synergy, standardization, and focus highlighted under the supply and transportation merger is a perfect example of the benefits obtained from management of complex processes under one boss.

Air Force leadership recognized the benefits of having an experienced maintainer overseeing maintenance operations when they created the DOGM position. Establishing

this position has proven to be a half-hearted attempt at addressing the need for standardization and control of flight line maintenance activities at each wing. The DOGM seems to be an attempt at replicating the function of the AGS commander; however, the DOGM has no tools or command authority to implement identified or needed changes within the Operations Group. The role is often more advisory than authoritative. The tough decisions for flight line maintenance often default back to the FS/CC, who is not in the best position to manage complex maintenance issues nor is focused on the wing's overall maintenance situation. Additionally, as noted in prior research projects, the DOGM position often puts the SMO in a dilemma. He/she must choose between following the group's senior maintainer (DOGM) or their boss (FS/CC), who has limited experience on tough maintenance issues.¹ As previously stated the DOGM needs full authority over flight line maintenance; this is not an opportunity for the Air Force to allow "county options."

In addition to current CLR initiatives, a top down review of maintenance functions and processes is needed. In a manner of speaking, the overall system is dysfunctional and does not present the best organizational structure to promptly resolve issues impacting maintenance. For Air Staff, the single authority for aircraft maintenance is AF/IL, where ILM has overall responsibility for maintenance processes. In the Mobility Air Forces (MAF) and Combat Air Forces, the MAJCOM LG is the single authority for maintenance issues with LGM as the focal point.

However, under the CAF hierarchy, MAJCOM DO coordination is required on issues impacting flight line maintenance. The irony of MAJCOM DO coordination is the DO has no staff or experienced maintenance officers or SNCOs to work maintenance

issues. Finally, the LG is seen as the authority for maintenance issues in the wing; yet, the LG has no authority over flight line maintenance processes. In light of this fact, when many wing flight line maintenance issues arise, the CAF's MAJCOM LG and/or staff is forced to cross directorate lines to resolve issues. Part of the problem is many wing OGs see the DO as their avenue to resolve maintenance issues versus addressing the problem to the MAJCOM directorate staffed to address maintenance issues. Unlike Air Staff, MAF, AFSOC, ANG, and AFRC, the CAF has no single authority for maintenance issues. Considering maintenance officers can easily cross between the CAF and MAF, it is not efficient for the Air Force to default to two independent organizational structures.

Finally, Air Force leadership should determine the best MAJCOM and Air Staff structure to manage the new wing structure for logistics. Every effort is needed to deconflict and improve staff synergy in the complexities of integrating 21S/21T/21G processes under a single boss. The logical progression would be combining supply, transportation, and logistics planning functions at the MAJCOM and Air Staff levels.

Notes

¹ Blanks, Major Clifton D. "Deputy Operations Group Commander For Maintenance -- DOGM "Band aid or Solution?" Research Report no. AU/ACSC/028/2000-04 (Maxwell AFB, AL: Air Command and Staff College, April 2000).

Chapter 6

Recommendation / Way Ahead

Logistics comprises the means and arrangements which work out the plans of strategy and tactics. Strategy decides where to act, and logistics brings the troops to that point.

—General Antoine Henri Jomini

The CLR process is definitely a step in the right direction. A detailed review of processes impacting the overall effectiveness of logistics was long overdue and the current near-term and long-term initiatives appear to be on track. As for the established metrics, it will be difficult to pinpoint successes or failures to any particular CLR initiatives because of the dynamics involved. Reiterating Gen McPeak's own words, "maintaining aircraft is a tough, complicated business. And we organized to solve the logistics problem".¹

Until we develop a logistics system that can fully support the demands of the "remove and replace" philosophy of flight line maintenance and for the very reason quoted by Gen McPeak, the first recommendation is maintenance should be consolidated under a single authority at all levels throughout the USAF. This means Air Staff authority remains AF/IL and the single MAJCOM and objective wing authority is the LG. However, due to the size of the maintenance complex and multiple processes involved, the second recommendation is to establish a separate group for aircraft maintenance as originally proposed by USAFE to the CSAF in 1999.² With the removal

of maintenance, another consideration that closely mirrors USAFE's proposal to the CSAF for the Logistics Group is to include all other base organizations that contribute to the logistics of a wing. These organizations include the Civil Engineering Squadron and the Communications Squadron. The final piece would be the recently tested Logistics Readiness Squadron.

For the consolidated maintenance group, flight line maintenance should be centralized under the authority of a single maintenance commander. The current O-5 DOGM position should be designated as the commander of the squadron. Each FSM flight will remain functionally attached to their perspective flying squadron to maintain the unity and integrity of the combat unit. However, with the absence of Phase, the current Sortie Support Flight should be absorbed as an element in the Sortie Generation Flight. The group should retain the current EMS and CRS (or MXS where applicable). PS&D, MOC, Analysis, MSL and QA should remain centralized under a support squadron, whose main focus is to monitor and coordinate actions to ensure near-term mission requirements are maximized while focusing on long-term fleet health of the wing.

To address the concern of growing future wing leaders with an understanding and appreciation of logistics processes, a program should be developed to crossflow pilots, early in their career, into limited flight level leadership positions in maintenance. As with the crossflow of logisticians, only a select number of pilots should participate in this program. During the program, the pilots should remain on flying status and their time should be equally shared between their flying and leadership duties. The crossflow window should be between 4-7 years of active service time.

If a separate group for maintenance is not a viable option, all maintenance should be consolidated under the current wing LG, which would include consolidating flight line maintenance under a single squadron commander. All the benefits, previously mentioned are retained. This structure consolidates all logistics processes under a single wing authority, increasing the potential for a greater degree of synergy and focus of these complex processes. On the contrary, this does significantly increase the size and overall level of responsibility of the Logistics Group.

Although consolidating maintenance under a single authority, streamlines processes at all levels in the AF, some may feel it does not offer the best solution for growing future wing leaders. If flight line maintenance is to remain under the OG, then the first course of action should be to consolidate flight line maintenance in a squadron led by a single O-5 maintenance leader. As mentioned above, the DOGM should be the commander of the consolidated flight line maintenance squadron. Under this concept, as well as maintenance consolidated in a separate group or maintenance consolidated under the LG, the operations and maintenance team remains intact as a cohesive unit. They continue to train, deploy, and fight as a unit under the same operational designator (e.g., 33 FS/FSM or 909ARS/FSM). As seen under COMO, aircrew and maintenance personnel will continue to train and fight together; and as exercised today, maintenance officers will retain responsibility for deployed personnel and the health of deployed aircraft. The DOGM becomes the flight line maintenance squadron commander and continues to serve as the principle advisor and single authority to the OG on flight line maintenance issues. An additional benefit to consolidating flight line maintenance in a single squadron under the OG is the opportunity for maintenance officers to be truly mentored by a senior

maintenance officer in their direct chain of command. Furthermore, consolidation increases the opportunity to benchmark successes and to standardize processes impacting the overall success of the wing.

Finally, if neither of the previously mentioned options is viable, the DOGM must be the single authority for all maintenance actions in the OG. SMOs should be administratively assigned to the FS but work for the DOGM.

The confusion over the role of the Maintenance Operations Officer (MOO) must be resolved. The MOO is the wing's aircraft maintenance officer that is paid to look beyond the normal. Comparatively speaking, the MOO is to the LG/OG what the RAND Corporation is to the Air Force. As the key fleet health manager, the MOO should be the wing analyst tasked to identify trends in fleet health as well as disparities in the wing scheduling process. The MOO should also be a key advocate for the Air Force Engineering and Technical Services (AFETS) involvement to help resolve airframe or systems issues plaguing the wing's operations. The MOO's role is not to circumvent or replace the long-term fleet health responsibilities of the Sortie Generation Flight Commander, SMO, or DOGM. Long-term fleet health is inherent in the responsibilities of sortie generation and should never be dismissed to another agency; flying squadron maintenance officers are still responsible for recognizing and answering to all aspects regarding their aircraft. Finally, with oversight of the Maintenance Operations Center, the MOO should ensure the MOC exercises its full authority and responsibility, which extends beyond accurate status tracking and reporting, to serving as the wing maintenance agency for prioritization of shared assets.

As previously mentioned, the MOO should work directly for the LSS/CC. This alignment keeps the MOO's roles and responsibilities in perspective and restores the needed credibility to one of the Logistics Group's squadron command positions. Finally, aligning the MOO under the LSS/CC does not undermine the importance of the OG's senior maintenance officer.

As with logistics plans, continued standardization of logistics processes across the Air Force is essential to establishing standard guidance, metrics, and process management. Additionally and more importantly, personnel will be able to transition between PCS, TDY and contingency locations with ease.

On the surface CLR failed to look seriously at personnel and support equipment requirements. EAF has placed demands on units unlike any requirements in the past. Many units are experiencing both equipment and personnel shortfalls. In order to meet the current EAF, TDY and daily operational requirements, a serious review of manning, UTCs, and equipment authorization requirements is needed.

Notes

¹ McPeak, Merrill A. *Selected Works 1990-1994*. Air University Press, Maxwell Air Force Base, Alabama, August 1995, 109.

² BGen Terry L. Grabreski, "Posturing Aircraft Maintenance for Combat Readiness." Briefing, Ramstein AB, GE, Unpublished, Sep 99.

Chapter 7

Conclusions

There are many ways to measure success. One of them is the count--how much did you do, how much got done, what did you complete? A second way to measure success is meeting your customers' needs. That means two things: first, understanding what the problem really is and, second, giving you customers a great, workable solution.

—Author Unknown

In regards to changes implemented from CLR, it is premature to fully assess whether or not the logistics and operations community is achieving the desired effects or improvements to EAF. Logistics processes are being made more efficient and effective. However, any apparent success or failure of any near-term CLR initiative needs to be kept in the proper perspective. The key is tying success or failure to elements within the control of the organizations involved. Although decentralization offers many advantages to logistics and maintenance processes, a single authority and oversight allows better use of limited wing assets, encourages streamlining of wing processes, standardization of successful practices, and a common direction and vision for the maintenance and/or logistics community as a whole.

For maintenance, the current structure is not conducive to standardization of processes essential to the success of wing operations. One cannot ignore the fact that concern about flight line maintenance is the root cause of the CLR initiative. Examination of key facts reveals several interesting points. First, COMO provided a

single 0-5 maintenance authority for the typical three aircraft maintenance unit (AMU) construct, where the objective wing divided the same construct between three 0-5 commanders with limited or zero maintenance experience. Second, flight line maintenance was centrally managed by a single 0-4 maintenance supervisor in the AMU's chain of command, where the objective wing established an 0-5 maintenance officer in more of an advisory role (not in the flight line maintenance officers rated chain). Third, a single 0-3 maintenance officer was held accountable for both daily requirements and long term fleet health, where the objective wing requires an 0-4 maintenance officer to accomplish the same. However, emphasis of today's 0-4 flight line maintenance officer is stated to be more on daily requirements versus balancing this requirement with fleet health. Although it should be an irrelevant point when it comes to officership and military tradition, the SMO is not in the rating chain of the flight line officers managing the processes that the SMO is held accountable. By the SMO becoming the maintenance focal point for FSM, the 0-3 sortie generation and sortie support officers were deprived of growth opportunities previously granted. In essence while the single boss maintenance structure held the 0-3 sortie generation officer (AMU OIC) accountable for the actions of the AMU, the objective wing did not do the same for the 0-3 sortie generation officer. A final point is the current structure not only divides maintenance processes within the group but also divides maintenance processes within the individual flying squadron. Again, the economies of scale and focus from a single boss are missing, requiring additional coordination and a possible riff in the organization.

It is no secret that individual flying squadrons in today's flight line maintenance environment focus on their own immediate success. There is little concerted effort to

focus daily operations from a wing perspective. It is time for AF leadership to put aside the sensitivities involved with the success or failure of individual groups of leaders. The objective wing structure works and so did COMO. The key is recognizing and establishing the organizational structure that is best capable of handling the dynamics and complexities of today's operational environment and the uncertainties of weapons systems component reliability and supporting infrastructure. Time after time, history has proven the best organizational structure to handle the various processes impacting maintenance is a structure that consolidates all maintenance under a single boss with vast experience and knowledge of maintenance.

As a final thought, one MAJCOM provided a CLR summary that is thought provoking and reinforces the overall direction needed for correcting problems seen in today's operational environment:

"I believe we have a fundamental problem in the conceptual instructions for CLR. Instruction documents state that sortie production is the responsibility of the OG/CC while fleet health is the responsibility of the LG/CC. This implies that the two issues are different. In fact, in any great wing the only important issue is fleet health and it is the responsibility of the entire maintenance complex (ops and log) to sustain it. Production will flow from a top-notch fleet health program -- it's not different, it's a part of it. As a result of saying it this way, I believe we have introduced an inadvertent wedge between the two concepts leaving the impression that they can be mutually exclusive objectives and therefore naturally pitting the OG/CC against the LG/CC (yet we provided all the planning staff to do both functions only to the LG/CC). In Gen Creech's book he speaks of first sorting out the product, then developing a process, and only then arranging an organization. I believe at this point that we should revisit first -- what is the product of the various organizations and second - - what processes fit within each. This should lead to an organizational scheme. In my opinion, the proper start is to clarify definitions and remove the difference between fleet health and production."¹

Notes

¹ AF/ILMM. MAJCOM CLR Monthly Reports, Dec 2001.

Appendix A

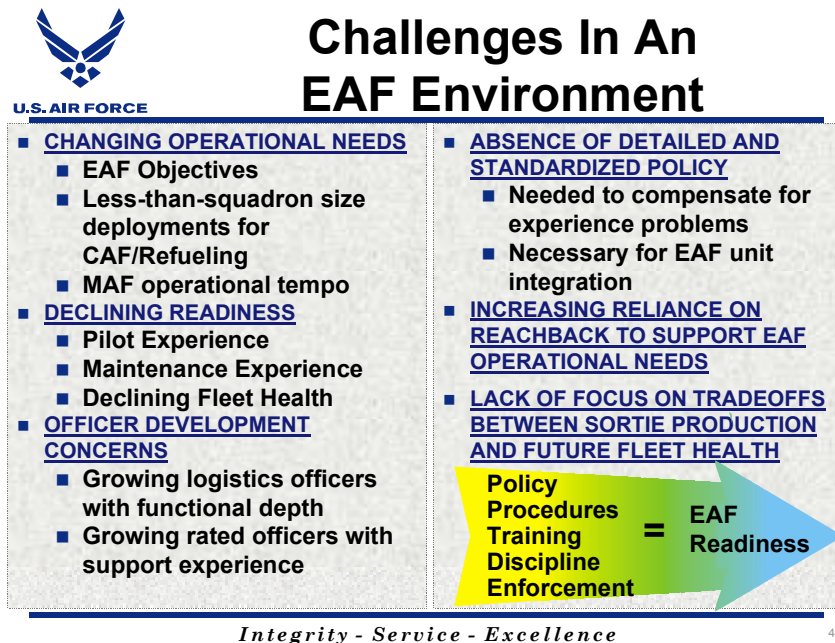


Figure 1 Challenges in an EAF Environment (AL/IL Briefing, Aug 01)

The diagram, titled "Near-Term Test and Evaluation", features the U.S. Air Force logo and a list of approved objectives organized into three categories, each with a blue header and bulleted items:

- Standardized Logistics Plans**
- Supply/Transportation merger**
- Fleet Health in the LG**
 - MOC, Plans, Scheduling & Documentation; Maintenance Analysis; QA; and Phase
 - Focus Sortie Production in the OG and Fleet Health in the LG

At the bottom, the motto "Integrity - Service - Excellence" is written in italics, and a small number "38" is in the bottom right corner.

Approved:

- Standardized Logistics Plans
- Supply/Transportation merger
- Fleet Health in the LG
 - MOC, Plans, Scheduling & Documentation; Maintenance Analysis; QA; and Phase
 - Focus Sortie Production in the OG and Fleet Health in the LG

Figure 2 Approved Near-Term Test Objectives (AL/IL Briefing, Aug 01)



U.S. AIR FORCE

Standardize Logistics Plans

- Initiative to be Tested: Standardization of wing logistics planning functions within the Logistics Group
- Goal/Impact: Enhance contingency planning/support and other planning and execution processes
- Exit Criteria:
 - Effective and efficient deployment/contingency planning, preparation, and execution processes
 - Improved LG accountability for deployment
 - Improve synergy among Wing functions
 - Effective integration with Wing planning efforts

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39

Figure 3 Logistics Plans Initiative (AF/IL Briefing, Aug 01)



U.S. AIR FORCE

Materiel Management

- Initiative to be Tested: Merge Supply and Transportation Functions
- Goal/Impact: Create a single authority for distribution
- Exit Criteria:
 - Improve base distribution process
 - Improve contingency planning, deployment, and execution
 - Enhance officer, civilian, and enlisted development
 - Improve combat support command & control capabilities

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40

Figure 4 Materiel Management Initiative (AF/IL Briefing, Aug 01)



U.S. AIR FORCE

Sortie Production / Fleet Health

- Initiative to be Tested: Focus sortie production in OG and fleet health in LG - Realign MOC, Analysis, PS&D, Phase, and QA to LG/CC
- Goal/Impact: Balance sortie production and fleet health
- Exit Criteria:
 - Consistent, standardized quality and timeliness of maintenance processes
 - Improved balance between sortie production/fleet health
 - Improved teamwork between OG and LG

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41

Figure 5 Sortie Production and Fleet Health Initiatives (AF/IL Briefing, Aug 01)



U.S. AIR FORCE

Impact

- Implementation of CLR options will:
 - Improve NMCM rate by 10% by 2004
 - Improve retention of 5-level maintenance personnel to desired levels (approx. 55% / 75%)
 - Produce more professionally trained and capable force across all logistics disciplines
 - Stabilize Flying Hour Program execution
 - Continue officer development for both logistics and rated officers
 - Enhance contingency planning, deployment, and execution
 - Instill same level of concern for fleet health as for sortie production

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46

Figure 6 Expected Outcome of CLR (AF/IL Briefing, Aug 01)



Long Term Evaluation

- Re-define training manager duties
- Align recurring training with AEF cycles
- Standardize wartime task training
- Utilize 3-levels at contingency locations
- Train logistics SNCOs with technical leadership
- Develop Weapons School for Logistics
- Align logistics officer career fields in two tracks
- Improve officer crossflow management

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44

Figure 7 Long-Term Initiatives (AF/IL Briefing, Aug 01)



Analysis Methodology

- Gather **quantitative** measures from bases monthly--where practical
 - Short-test duration & multiple test variables introduce challenges
- **Qualitative** on-site interviews will complement quantitative findings--always
- Results across bases will be analyzed for impact and comparison

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42

Figure 8 Near-term Analysis Methodology (AF/IL Briefing, Aug 01)

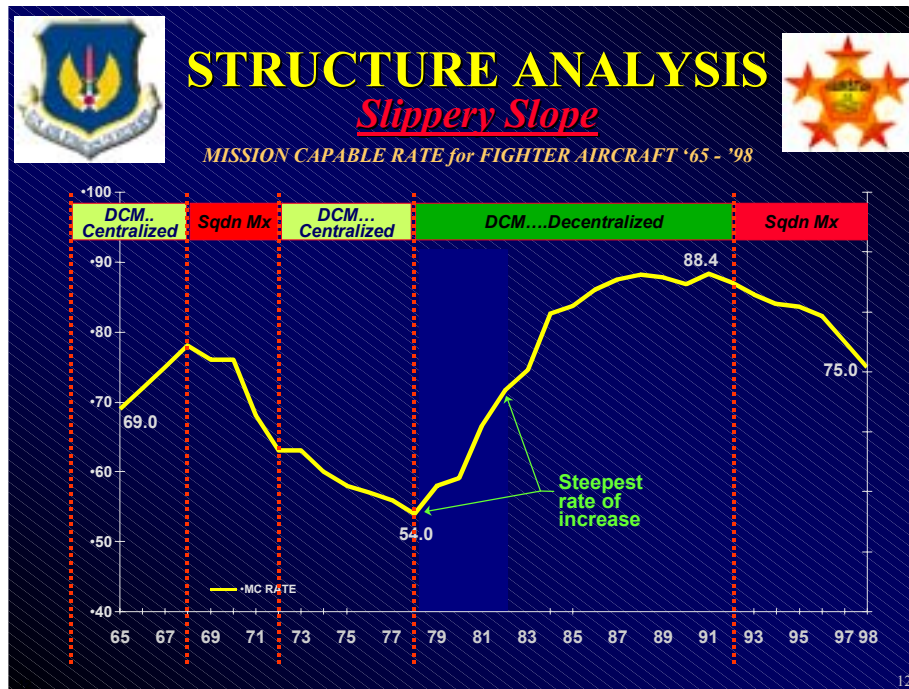


Figure 9 Slippery Slope (USAFE Briefing, Sep 99)

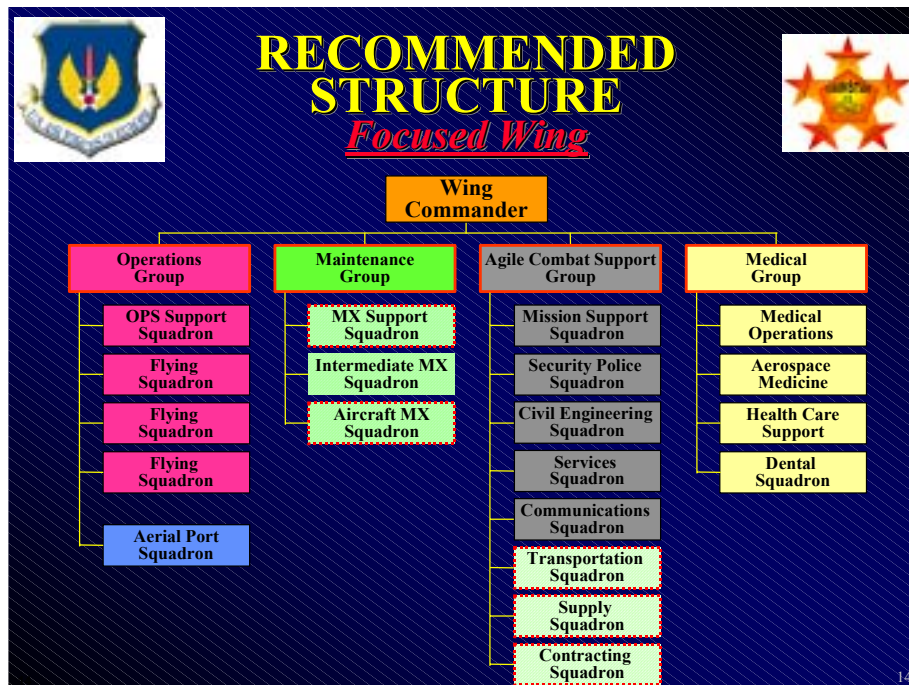


Figure 10 Proposed Organizational Structure (USAFE Briefing, Sep 99)

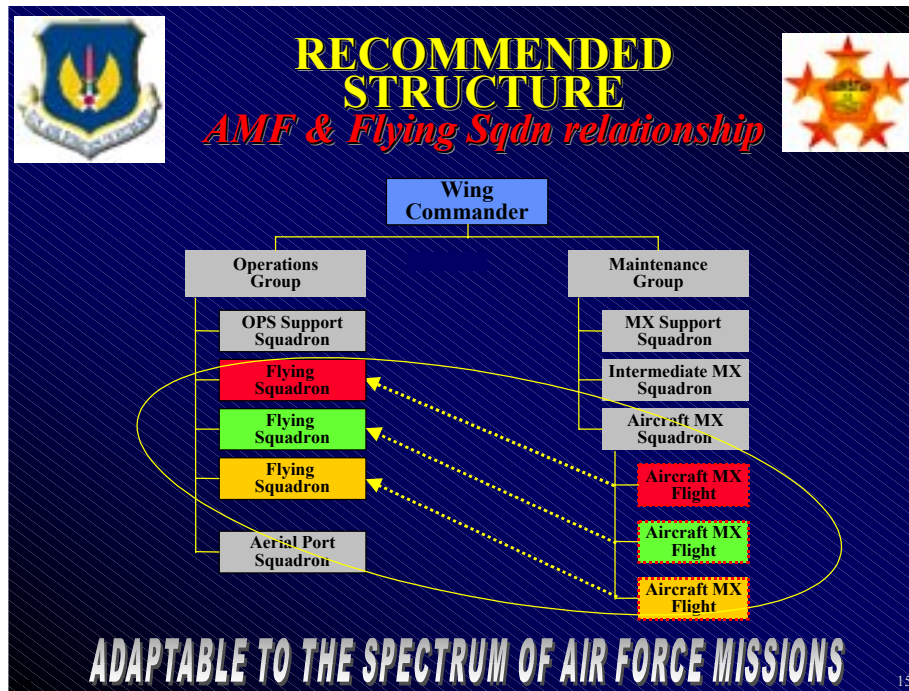


Figure 11 Flying Squadron and w/ Flight Line Maintenance Organizational (USAFE Briefing, Sep 99)

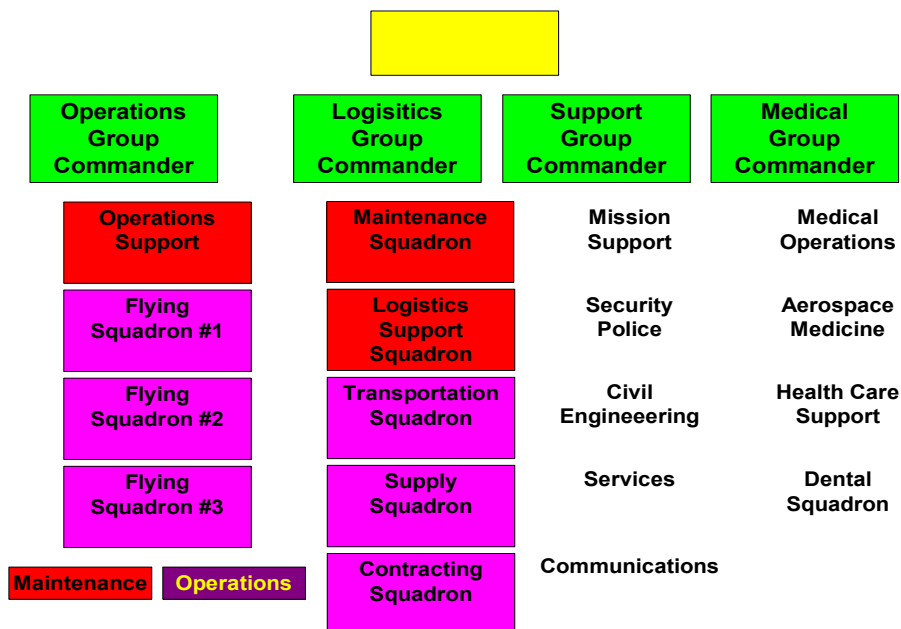


Figure 12 Objective Wing Structure (USAFE Briefing, Sep 99)



GOAL

- Create highly skilled operational logisticians competent in the following wartime skills:
 - Mobilization
 - Deployment
 - Beddown
 - Sustainment
 - Combat Employment
 - Redeployment
 - Reconstitution
 - Command and Control
- Provide warfighting commander with special expertise in the application of expeditionary logistics
- Leverage effects-based logistics to improve combat capability

Figure 13 Expeditionary Logistics School Objectives (ACC, Jan 02)



STRAWMAN COURSE OUTLINE

BLOCK	LOCATION(S)	DURATION
1. Instructor Training	Nellis AFB	2 weeks
2. Warrior Prep	Nellis AFB	2 weeks
3. Doctrine History - Lessons Learned/Org Structure	Nellis AFB	2 weeks
4. Mobilization/C2 - Acft Gen, Fleet Mgt, UTC Tailoring	Nellis AFB Maxwell – CWPC Ft Dix - AMWC	3 weeks
5. Deployment/C2 - Strat Lift, Enroute Support, JTAV, GTN	AMWC - Phoenix Readiness	2.5 weeks
6. Beddown/Sustainment/C2 - Reception, BSP, Comm, Reachback, HNS	Hurlburt Fld AFIT – Log 299	2.5 weeks
7. Combat Employment/C2 - Mun Mgt/BU, Sortie Gen, Flt Mgt, Theater Dist	Nellis AFB, Beale AFB -AFCOMAC Hurlburt Fld – Blue Flag	4 weeks
8. Redeployment/Reconstitution/C2 -Planning, Enroute Support, Base Closure	Nellis AFB	1 week
9. Mission Employment/C2	Hurlburt Fld or Nellis AFB	3 weeks
10. Graduation	Total	22 weeks

Figure 14 Expeditionary Logistics School Course Outline (ACC Briefing, Jan 02)

Table 1 LG AFSC Distribution (Dec 2001)

Core AFSC Of LGs	
21A	48
21G	4
21M	6
21S	4
21T	5
Rated	8
Other	8

Source: AFPC Email Dec 2001

Appendix B

About the Authors

Major Lindsay is a career aircraft maintenance officer with approximately 14 years of active military service and is selected for squadron command following Air Command and Staff College. He served in the United States Air Forces in Europe, Pacific Air Forces, and former Tactical Air Command (now Air Combat Command). He has served as a member of the HQ USAFE Logistics Directorates Aircraft Maintenance Division as the 21A/M functional manager and other responsibilities to include maintenance policies and procedures, weapons systems management, logistics performance analysis, and the command's cost per flying hour program. He served as the aide de camp to the Third Air Force Commander and career-broadened as a crossflow officer in base-level supply. His flight line maintenance experience includes the KC-135R, F-15C, and F-16C, and intermediate level maintenance experience on the F-16C, F-15C, F-15E, KC-135R, RC-135, E-3, H-60, GE TF34 and PW F100-200/-100/-229 engines. He has served in squadron maintenance supervisory and flight leadership positions in the Component Repair Squadron, Maintenance Squadron, and Equipment Maintenance Squadron.

Maj Matyi is also a career aircraft maintenance officer with approximately 14 years of active military service and is selected for promotion 2-years BPZ to Lt Col and is selected for squadron command following Air Command and Staff College. He served in

Air Combat Command, the Pacific Air Forces, and the former Tactical Air Command. His HQ ACC staff responsibilities included oversight of all Combat Air Forces engines to include funding, programming and requirements. His flight line maintenance experience includes the F-15E and the F-15C and intermediate level maintenance support for F-15C, KC-135R, E-3, H-60s, RC-135, and the GE TF34 and PW F100-100 engines. He has held squadron maintenance supervisory and flight leadership positions in Flying Squadrons, the Maintenance Squadron, the Component Repair Squadron and Equipment Maintenance Squadron.

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